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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,653	09/15/2003	Michael P. Nowak	65858-0026/02-rASD-183	9391

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EXAMINER

LAU, TUNG S

ART UNIT

PAPER NUMBER

2863

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/662,653

Applicant(s)

NOWAK, MICHAEL P.

Examiner

Tung S Lau

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-28 is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date: _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1-26-04</u>   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### **Information Disclosure Statement**

1. The IDS filed on 1-26-2004 has been accepted and signed by the examiner.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 2, 3 are rejected under 35 U.S.C. 102(a) as being anticipated by  
Baloch et al. (U.S. Patent 6,459,974).

Regarding claim 1:

Baloch discloses a method of calibrating a field of view of a sensor within an observable area including the step of defining a reference image of a first observable area having at least one distinctive feature (Col. 2, Lines 15-67), said reference image defined by a first sensor placed at a base location (Col. 2, Lines 15-67), establishing a set of reference points relative to said first sensor that represent a location within said reference image of said at least one distinctive feature (Col. 2, Lines 15-67), placing a second sensor in a second observable area that is similar to said first observable area (Col. 3-4, Lines 20-14), said second sensor being placed in a location that generally corresponds in position to said base location (Col. 3-4, Lines 20-14); obtaining a test image of said

second observable area (Col. 4, Lines 15-26), said test image obtained by said second sensor and depicting at least one distinctive feature present in said second observable area (Col. 4, Lines 15-26); and comparing said set of reference points to said at least one distinctive feature depicted in said test image in order to assess a relative accuracy in placement of said second sensor (Col. 4, Lines 15-26, Col. 4, Lines 15-49).

Regarding claim 2, Baloch discloses a duplicate environments (fig. 1, 2, 3, Col. 3-4, Lines 31-27); Regarding claim 3, Baloch discloses at least one distinctive physical features (Col. 6, Lines 26-57).

### ***Claim Objections***

3. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitation of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: prior art fail to calculating an average distance between said at least one distinctive feature depicted in said test image and said set of mapped reference points, said calculated average distance representing a relative level of accuracy between a presumed orientation of said second sensor and an actual orientation of said second sensor.

Art Unit: 2863

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Allowable Subject Matter***

4. Claims 5-28 are allowed.

***Reasons for Allowance***

5. The following is an examiner's statement of reasons for allowance:

Independent claims 5, 14, 22 contain allowable subject matter. None of the prior art of record shows or fairly suggests the claimed invention.

Regarding claim 5:

The primary reason for the allowance of claim 5 is the inclusion of the method steps of calculating an average distance between said at least one distinctive feature in said distance image and said at least one set of mapped reference points, said calculated average distance representing a relative level of accuracy between said presumed orientation of said sensor and an actual orientation of said sensor. It is these features found in the claim, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes this claim allowable over the prior art.

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Claims 6 –13 are allowed due to their dependency on claim 5.

Regarding claim 14:

The primary reason for the allowance of claim 14 is the inclusion of a vehicle sensing system including processor compares an image location of said at least one distinctive feature to at least one set of reference points for a plurality of different presumed sensor positions, said comparison yielding the closest set of reference points for said presumed sensor position that best estimates an actual position of said sensor. It is these features found in the claim, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes this claim allowable over the prior art.

Claims 15-21 are allowed due to their dependency on claim 14.

Regarding claim 22:

The primary reason for the allowance of claim 22 is the inclusion of a method of calibrating a sensor for vehicle sensing system including determining which particular position of the sensor yields at least one set of adjusted reference points that most closely match said location of said at least one identified distinctive feature, said determined particular position estimating an actual position of the sensor. It is these features found in the claim, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes this claim allowable over the prior art.

Claims 23-28 are allowed due to their dependency on claim 22.


Art Unit: 2863

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S Lau whose telephone number is 571-272-2274. The examiner can normally be reached on M-F 9-5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9306

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TL

  
John Barlow  
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